

Marine Life Protection Act Initiative



Draft SAT Evaluation of Water and Sediment Quality of Round 3 SCRSG MPA Proposals

Presentation to the MLPA Master Plan Science Advisory Team
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California State Water Resources Control Board



Evaluation Scoring Methods

Two categories of marine protected areas (MPAs) were identified and analyzed:

1) Bay and estuary MPAs

- Ø Bays and estuaries are more likely to be associated with storm-water runoff
- Ø No ASBS currently designated in embayments

2) Coastal MPAs

- Ø Mainland coast and islands

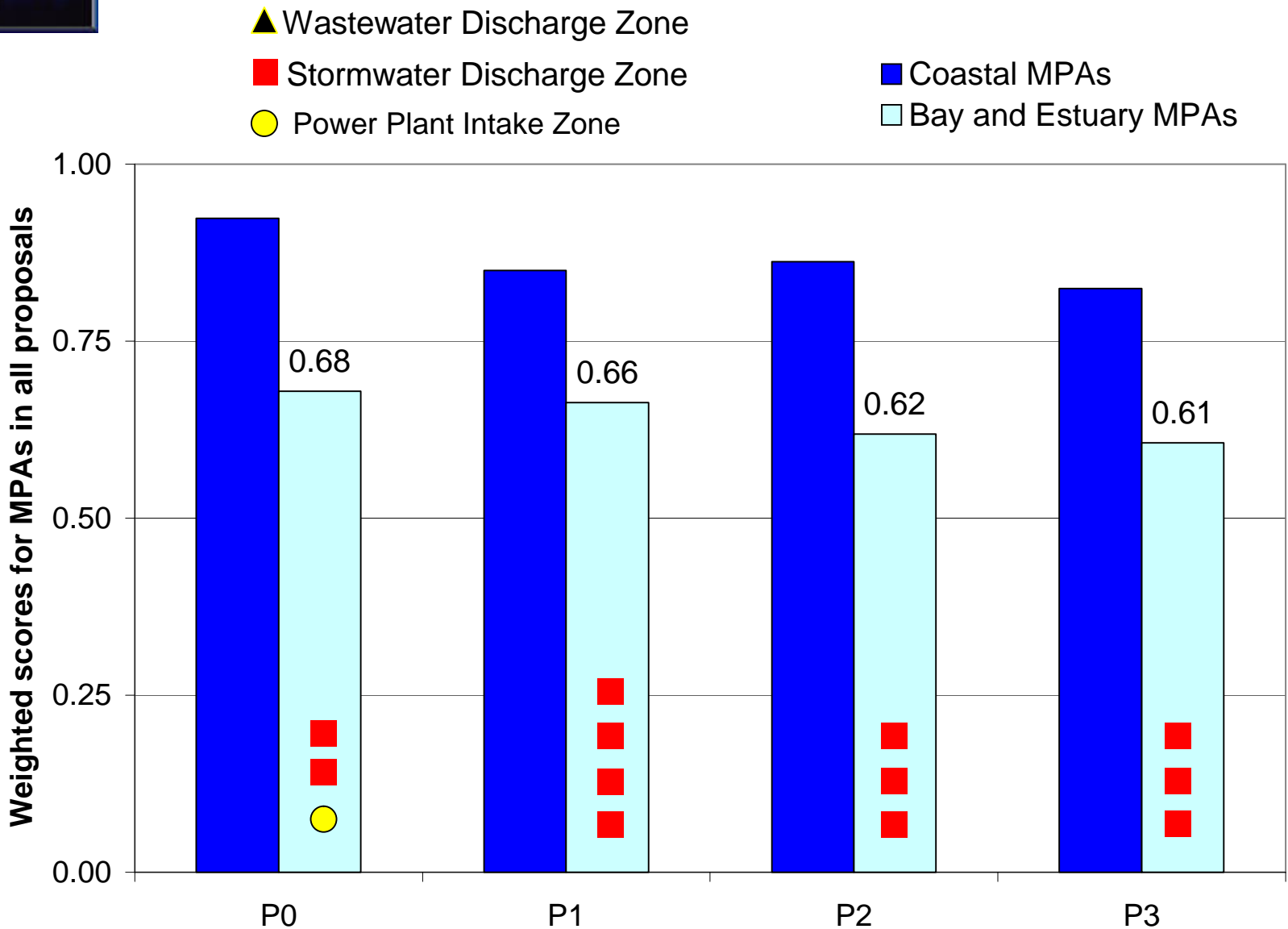


Evaluation Scoring Methods

Description of Scores:

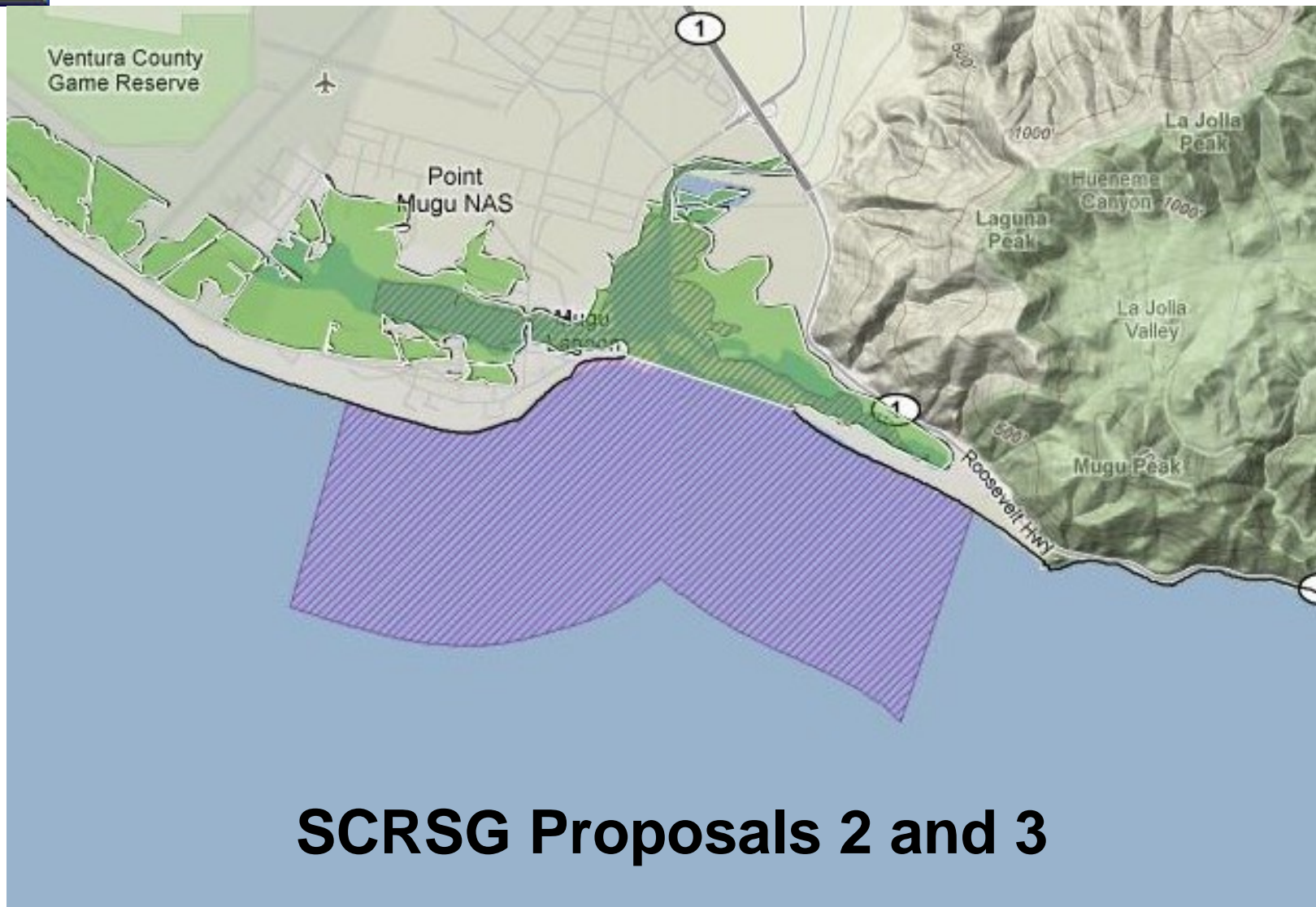
- Ø 0.0 is the least desirable and has serious water-quality concerns
- Ø For embayment MPAs, 0.75 is considered the most desirable, with no water-quality concerns
- Ø For coastal MPAs, 0.75 is desirable, indicating no water-quality concerns
- Ø Coastal MPAs with scores over 0.75 indicate they are co-located with an area of special biological significance (ASBS) / state water quality protection area; a score of 1.0 is the most desirable

Proposal Comparison- Bay and Estuary MPAs (Weighted Scores)



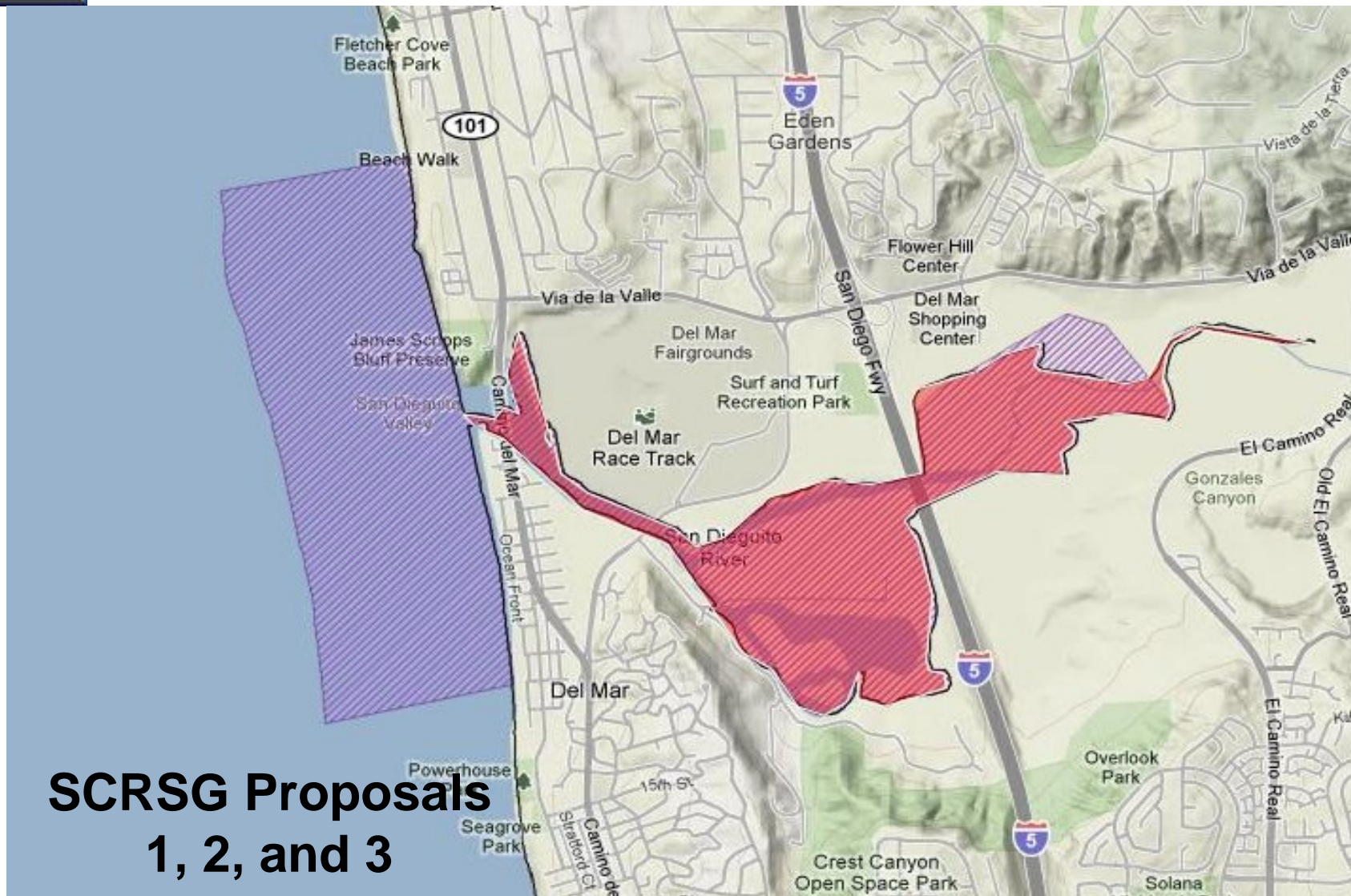


Mugu Lagoon





San Dieguito Lagoon





Summary of Scores for Embayments

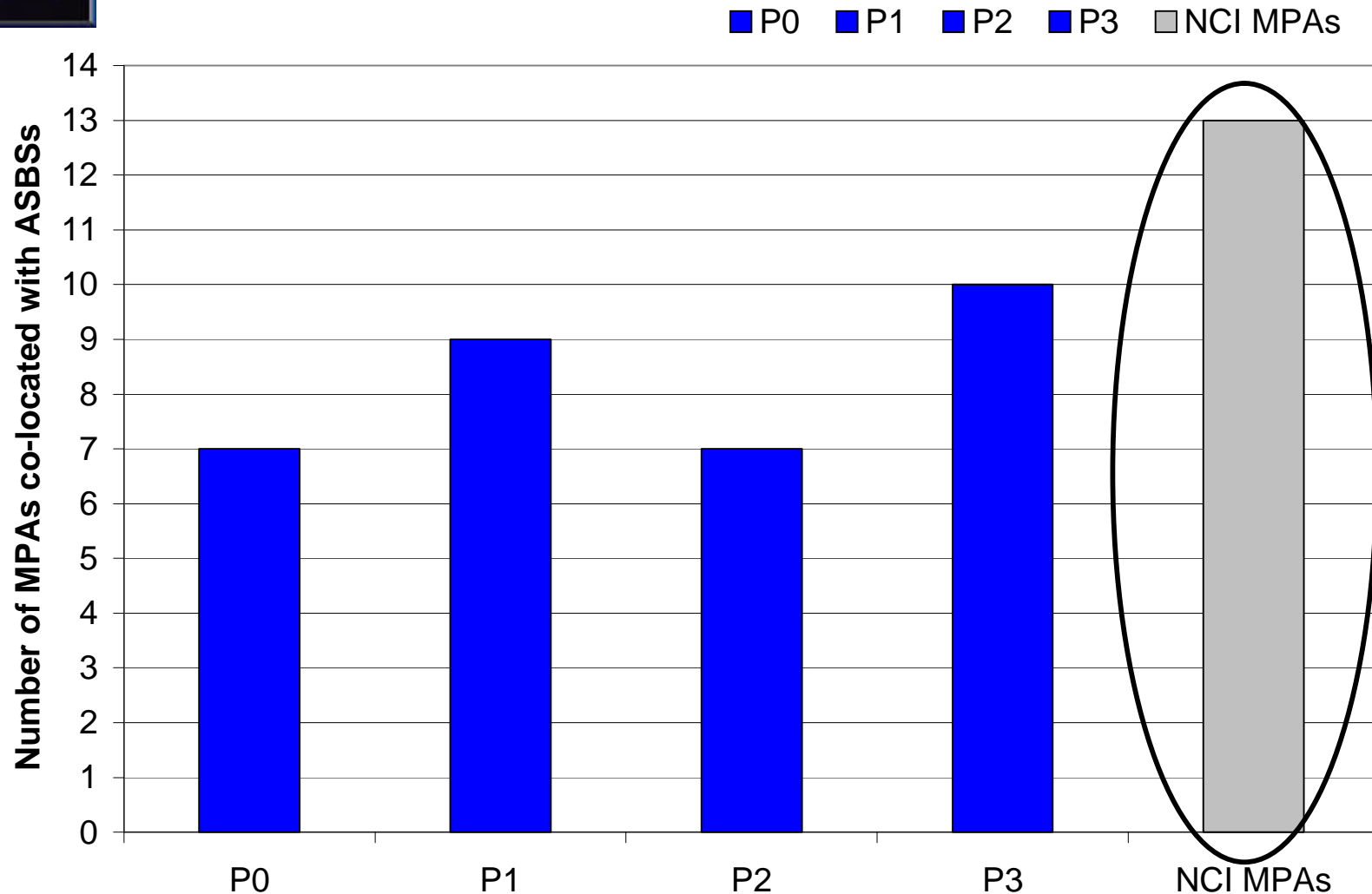
- All work group proposals scored well, between 0.61 and 0.66.
 - None included MPAs within power plant intake zones or waste-water outfalls.
 - All included a similar number of MPAs with major stormwater impact zones.
 1. It is difficult to completely avoid storm runoff in southern California embayments.
- SCRSG Proposal 1 had the highest score (0.66) and protected the most bays and estuaries.



Coastal MPAs and ASBS/SWQPAs

- All Northern Channel Island MPAs are protected by ASBSs, and are all equally represented in all proposals
- All submitted proposals included some coastal MPAs co-located with ASBSs
 - Proposal 3 had the greatest co-location with ASBSs (23)
- All military special closures at San Nicolas and San Clemente Islands are covered by ASBSs

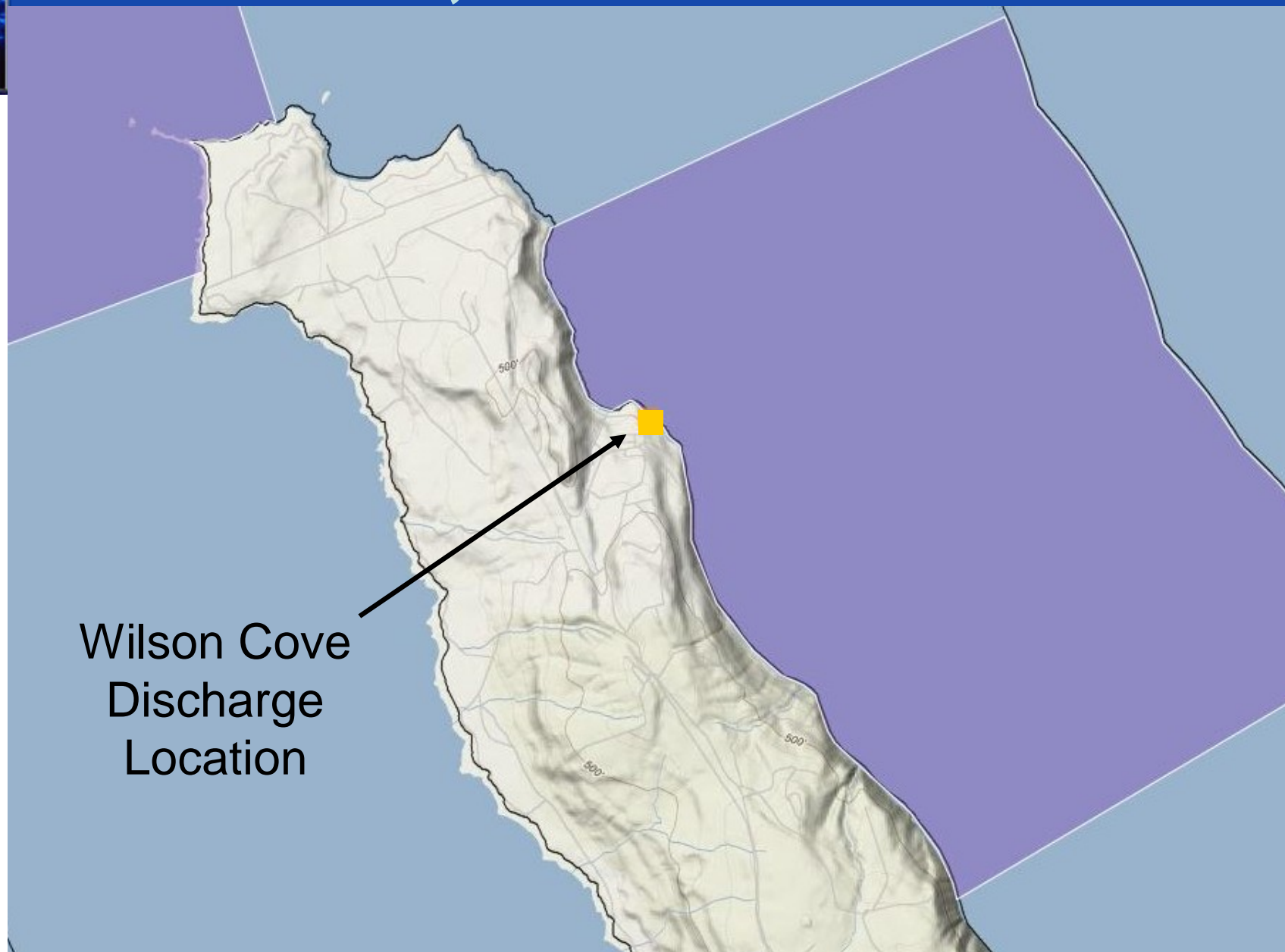
ASBS Co-Location, Coastal MPAs



*The Northern Channel Island (NCI) MPAs have been excluded from each proposal above and are represented as stand alone MPAs on the graph.



Wilson Cove, San Clemente Island



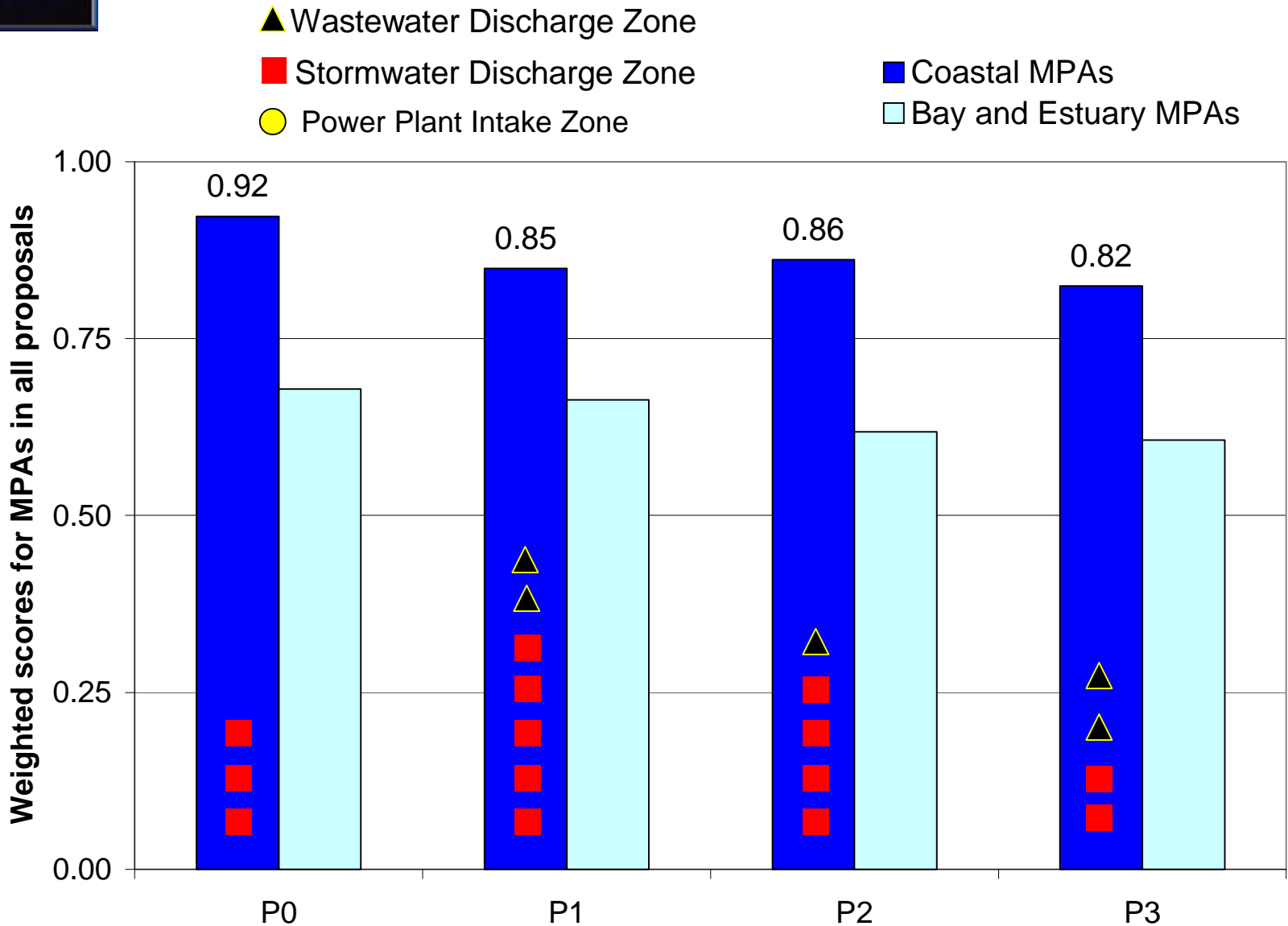
Wilson Cove
Discharge
Location



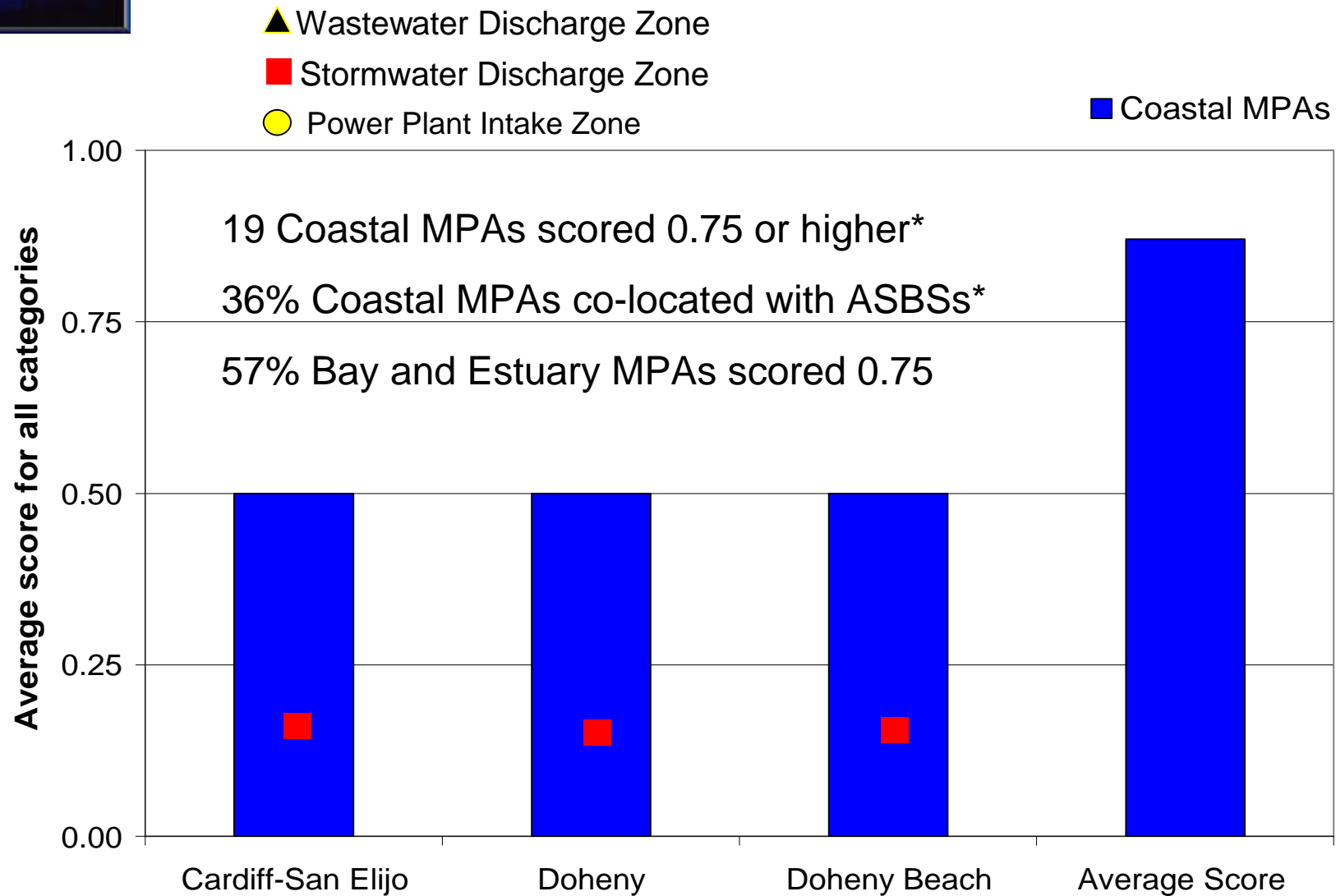
Water Quality in Coastal MPAs

- All submitted proposals did well in avoiding areas of water-quality concerns for most coastal MPAs
 - Weighted scores ranged between 0.82-0.86.
- Co-locations involved only a few storm water runoff plumes: Escondido Creek, San Dieguito Creek and Peñasquitos Creek, San Diego River, and Tijuana River
- No major wastewater outfalls were co-located with any of the proposals. Co-locations involved only a few intermediate wastewater outfalls: Avalon, San Elijo, and Aliso.
- No power plant intakes were co-located with MPAs

Proposal Comparison- Coastal MPAs (Weighted Scores)



Proposal 0 (Existing Coastal MPAs)



*Excludes NCI MPAs

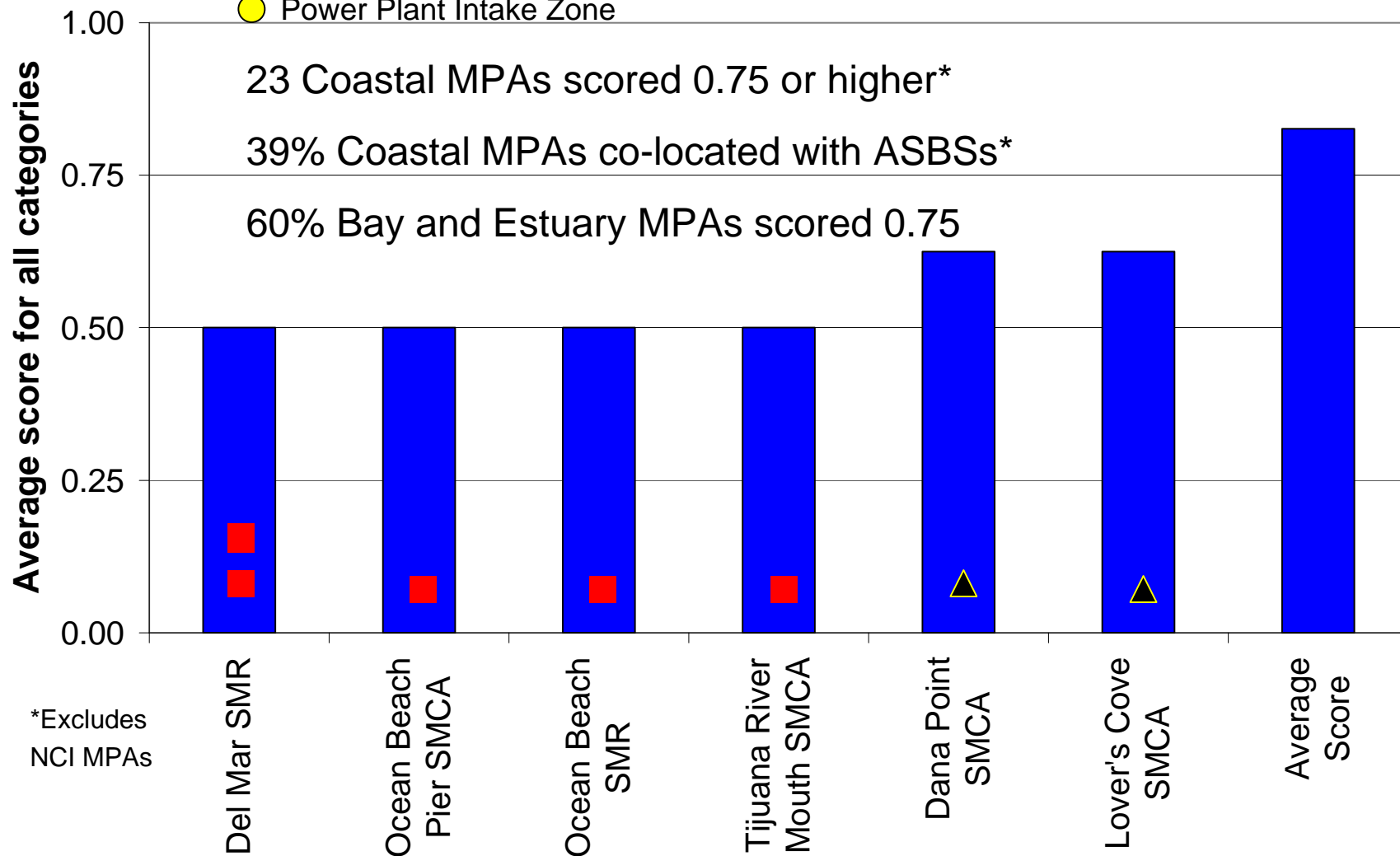
Work Group 1 Coastal MPAs

▲ Wastewater Discharge Zone

■ Stormwater Discharge Zone

● Power Plant Intake Zone

■ Coastal MPAs



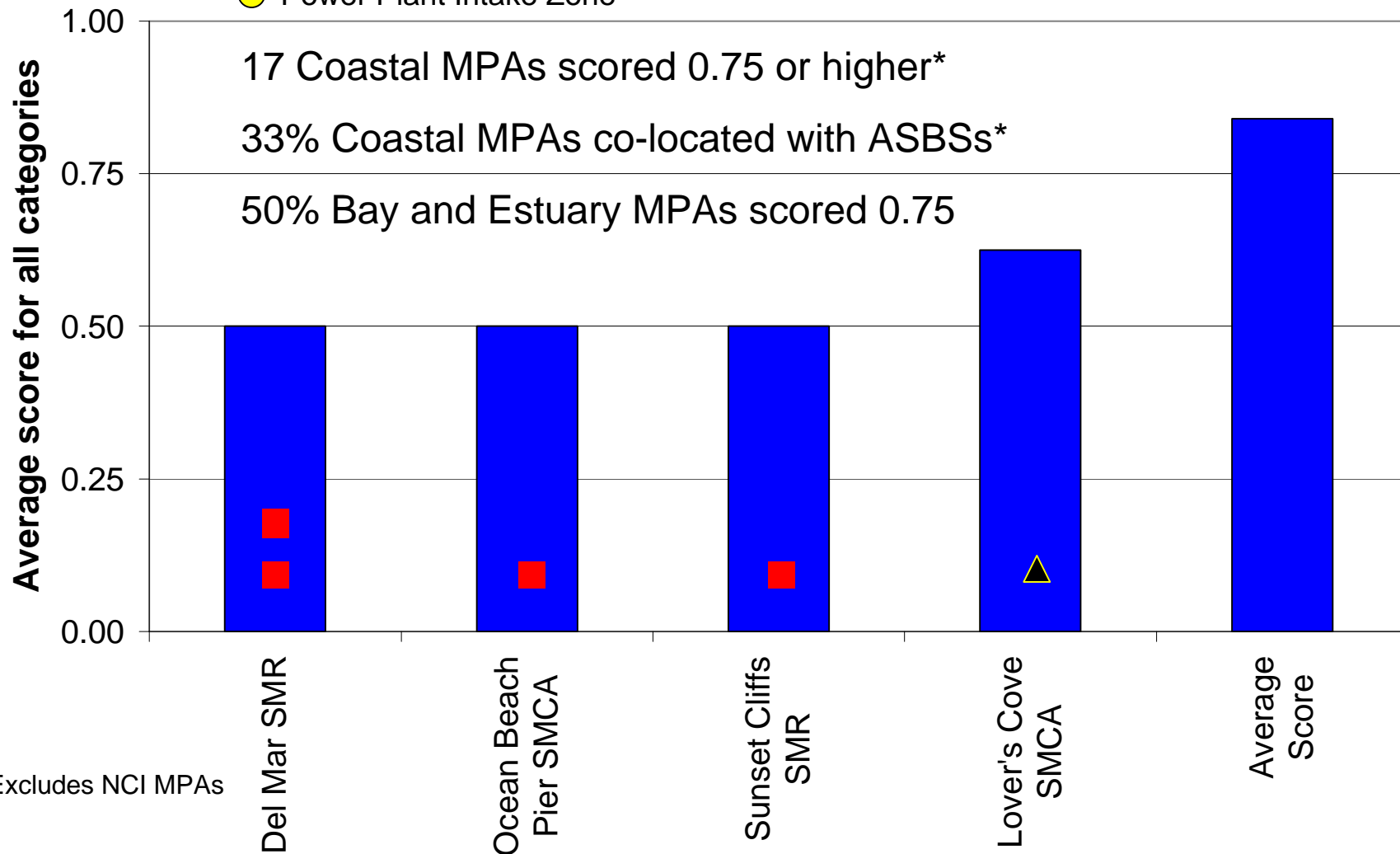
Work Group 2 Coastal MPAs

▲ Wastewater Discharge Zone

■ Stormwater Discharge Zone

● Power Plant Intake Zone

■ Coastal MPAs



*Excludes NCI MPAs

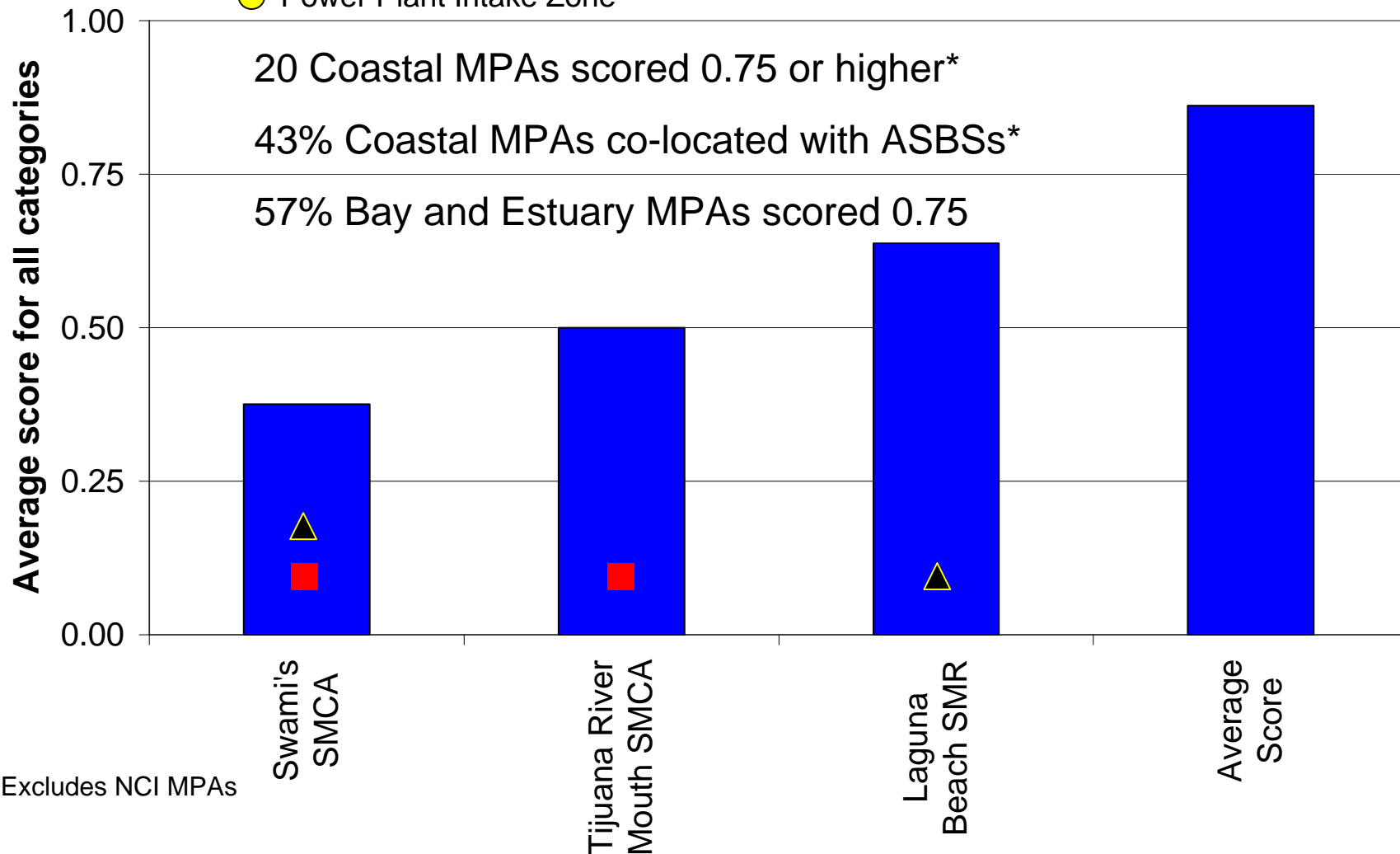
Work Group 3 Coastal MPAs

▲ Wastewater Discharge Zone

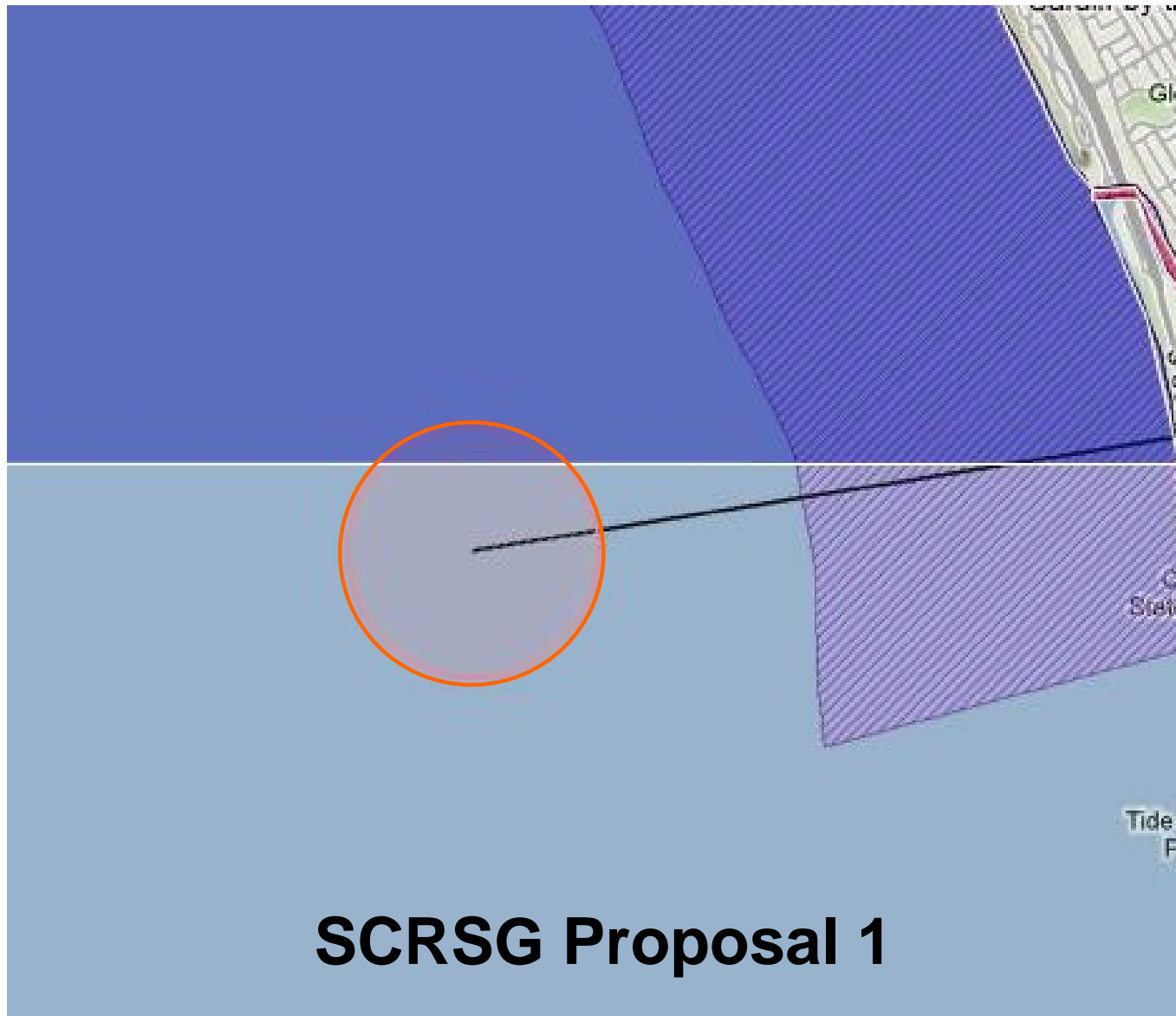
■ Stormwater Discharge Zone

● Power Plant Intake Zone

■ Coastal MPAs



San Elijo Outfall/ Swamis SMCA

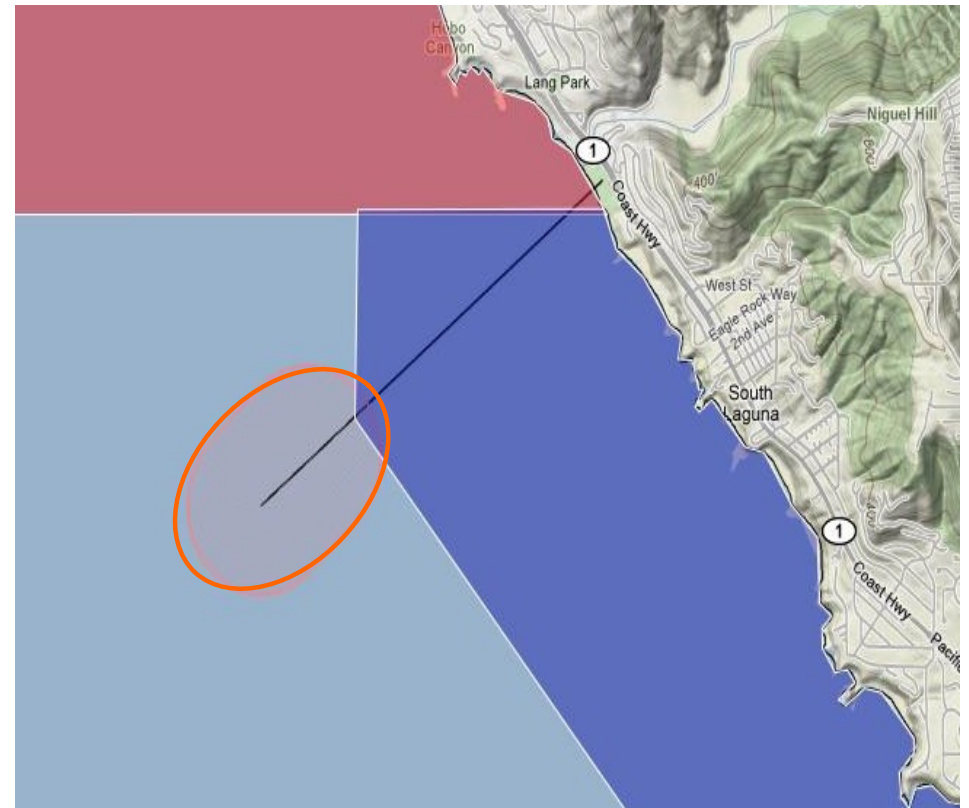


SCRSB Proposal 1

Avalon and Aliso Outfalls



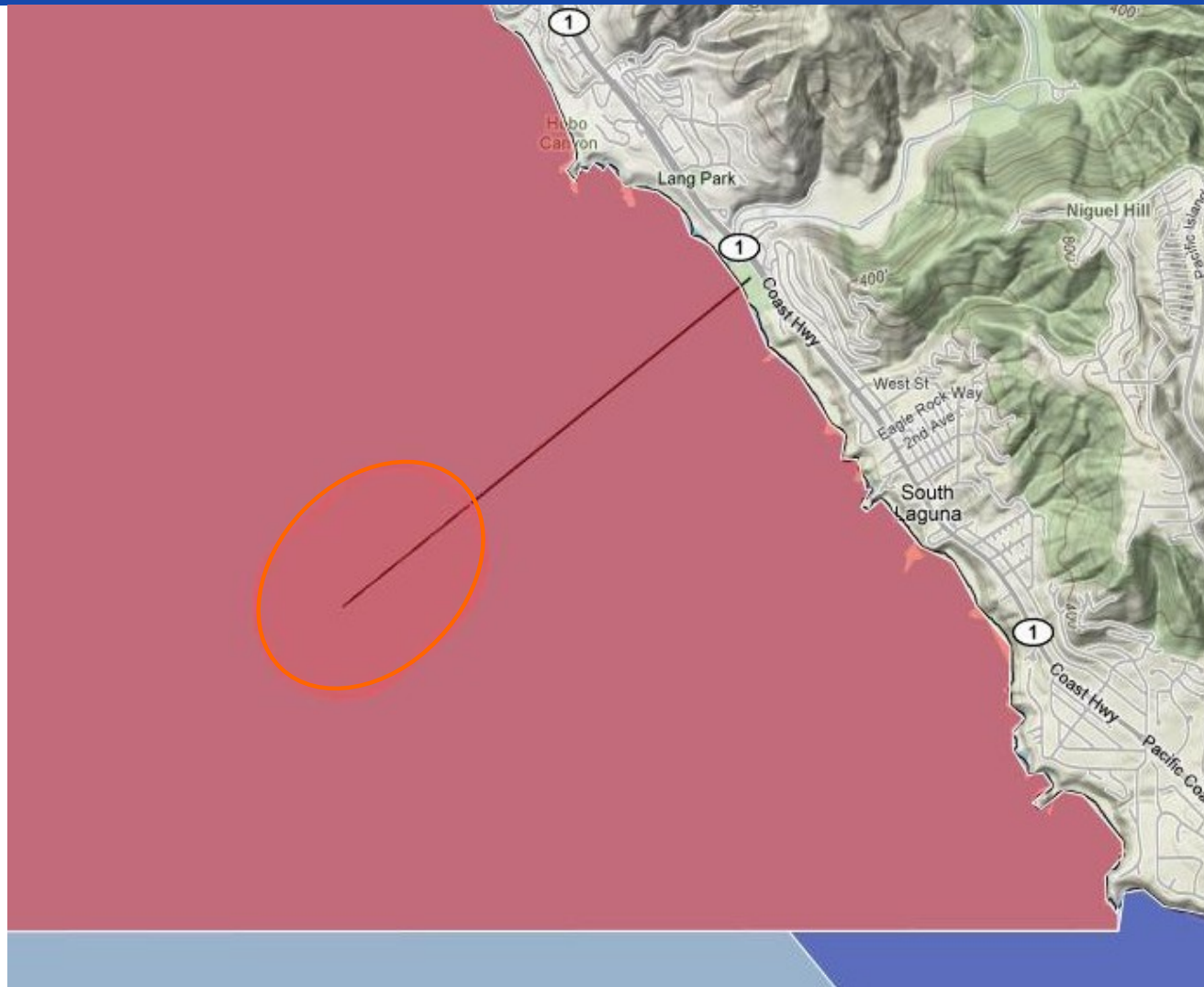
SCRSG Proposals 1 and 2
Lovers Cove SMCA



SCRSG Proposal 1
Dana Point SMCA



Aliso Outfall



SCRSG Proposal 3
Laguna Beach SMR



Coastal MPAs Summary

All submitted proposals scored well for coastal MPAs

Proposal	Number of MPAs	Stormwater	Wastewater	Power Plant	ASBS	Weighted Scores
1	42	5	2	0	22	0.85
2	34	4	1	0	20	0.86
3	36	2	2	0	23	0.82



Round 3 Summary

- All proposals scored well on coastal MPAs
- All proposals also scored better on bay and estuary MPAs as compared to Round 2
- As recommended, all proposals avoided Los Angeles Harbor, San Onofre Nuclear Generating Station's intake zone, industrial portions of San Diego Bay, the Portuguese Bend landslide and Palos Verdes Superfund site



Round 3 Summary, conclusion

- *Water-quality evaluations are not mandated by the MLPA, and should therefore be considered secondary to other MPA design guidelines. Water-quality considerations should be incorporated if other guidelines and criteria have been met.*